DOCUMENT RESUME

ED 125 383 HE 007 815

AUTHOR	Lennon, Frank; And Others
TITLE	The Beginning of a Journey. A Report on Minority Programs in Predominantly White Dental Schools.
INSTITUTION	Abt Associates, Inc. Cambridge, Mass.
SPONS AGENCY	Health Resources Administration (DHEW/PHS), Bethesda, Md. Div. of Dentistry.
PUB DATE	Apr 74
CONTRACT	NIH-72-4280
NOTE	80p.
EDRS PRICE	MF-$0.83 HC-$4.67 Plus Postage.
DESCRIPTORS	Admission Criteria; Career Opportunities; *Dental Schools; Educational Finance; Health Occupations Education; *Higher Education; Manpower Needs; *Minority Groups; *Student Financial Aid; Student Needs; *Student Recruitment

ABSTRACT

Dental schools across the country have begun to devote special attention to educating minority students in order to alleviate the acute shortage of minority dental manpower. The Workshop on Minority Education in Dentistry presented issues and approaches to answering a basic set of questions: How can qualified minority students be identified and where can they be found? What relevance do established admissions criteria have to these students? How best can the academic and social needs of these students be met in a structure that has evolved to meet a different set of academic preparations and cultural influences? How best can financial assistance be provided so that these students may graduate from dental school without incurring prohibitive indebtedness? What are the costs of establishing such a program and how can these costs be met? (Author/JMF)

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THE BEGINNING OF A JOURNEY

A Report on Minority Programs in Predominantly White Dental Schools

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U. S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
Public Health Service
Health Resources Administration

THE BEGINNING OF A JOURNEY
A REPORT ON MINORITY PROGRAMS IN PREDOMINANTLY WHITE DENTAL SCHOOLS

April 1974

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U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
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This publication was developed by Abt Associates, Inc., Cambridge, Massachusetts pursuant to Division of Dentistry Contract No. NIH 72-4280.

FOREWORD: THE BEGINNING OF A JOURNEY

Opening address by Dr. George Blue Spruce,
Liaision Officer for Indian Affairs, Health
Resources Administration, at the Workshop on
Minority Education in Dentistry,
San Francisco, August 22-23, 1973*

More and more people are coming to the conclusion that there is something seriously wrong with the way the Nation's health manpower resources are being utilized. More and more people are beginning to view it as a situation that certainly is not healthy. The symptoms are evident in the delivery of health care at all levels of society. Almost all Americans encounter high prices, shortages, and long waiting lines. But the most striking evidence that something is drastically wrong can be seen as it relates to the plight of our ethnic minority population. Health services are least adequate where the need is greatest, and ethnic minorities have some of the Nation's worst health problems. Diseases that have been controlled or eradicated in other areas are still prevalent among these minority people. Yet, suffering these high rates of disease, these minority people remain seriously under-represented in the health professions.

"A journey of 1,000 miles begins with a single step," it is said. This step can be represented by this workshop on minority education in dentistry. That this is a beginning step should not diminish its importance. This workshop undoubtedly will

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* At the time of the conference, Dr. Blue Spruce was the Director of the Office of Health Manpower Opportunity, Bureau of Health Manpower Development.

help determine future directions by testing unique educational experiences to discover which approaches work and which do not. Thus, it is important as a harbinger of the future. It is a significant step because it is a beginning. You are not just talking in terms of promises; you have taken the first step -- a step beyond hopes, beyond plans, beyond promises -- into action. You have begun the journey.

It is essential, though, while applauding any meaningful effort to raise the numbers of minorities in health careers, to recognize that these efforts be structured to avoid oversimplification of what really constitutes an opportunity for a Black, Chicano, or American Indian. Opportunity may require much more than simply paying the tuition of a student. For example, our minority people have contended historically with a myriad of adversities, which include financial deprivation, lack of educational opportunities, and exclusion from the mainstream of political and social life. A minority child who has never been treated by any dentist, much less by a minority dentist, can be expected to have a difficult time visualizing himself in that professional career. A minority youngster coming from a deprived area is affected in many ways by an absence of adequate health care, and one of those ways is the absence of examples which might stimulate his or her idea of how he or she might function as an adult.

Added to this immense handicap are economic pressures that make it impractical for many to contemplate a dental education, since this postpones their earning ability. The high cost of a dental education adds just one more dimension to the hurdle that appears insurmountable to those accustomed to poverty. Despite existing programs of assistance, the lack of adequate financial support remains the major deterrent to greater

involvement of minorities in all professions, and especially one with a preparation period as long as dentistry's. Acceptance to dental school is without substance if the costs are going to be prohibitive. The students will question the commitment to them until the necessary financial base is provided. To be specific, to offer a talented black, Chicano, Asian, or American Indian student $1,000 in scholarship aid is in many cases a deluding exercise when it costs about $5- to 6,000 annually to attend a dental school. What might appear to be a substantial sum of money for scholarship aid may afford no real opportunity if it is not substantial in relation to the candidate's needs calculated in terms of the cost of an education.

A shortage of money and unfamiliarity with role models may not be the only sources for a minority student's frustrations in preparing for a dental career. Other barriers, the Nation's unhappy heritage from centuries of injustice, have not yet crumbled away. The dynamics of opportunity do not exist for many, and there is merely a delusion of opportunity because other forms of discrimination still exist: rigid, oftentimes impractical admissions standards; insensitivity and unawareness of the unique needs of minority students. The reality of economic pressures, poor quality education, environmental deprivation, cultural attitudes, and stark discrimination means opportunity must take the shape which meets all of these challenges.

I'd like to present some thoughts on what this workshop can do to reduce or remove some of these impediments in the path of a minority student aspiring to a career in dentistry.

Efforts to bring more minorities into dentistry must begin with the children and persist until after their graduation. Parents and other relatives must be made aware of a career in dentistry, so that they can implant the idea of such a career choice in the minds of their children. Community leaders must begin to influence children in thinking about future careers in dentistry. Grade school teachers must be made aware of health careers like dentistry, and they must promote programs that will make pupils aware. Studies indicate that the decision to become a physician, for example, occurs predominantly between the ages of eight and ten. So our primary school teachers have a tremendous responsibility. High school teachers, especially career guidance counselors, must be made aware of careers in dentistry. They must have good knowledge of the subject and be well prepared to speak on it. They should devise and promote specific programs to increase awareness of the profession of dentistry. Talks by minority dental professionals must be encouraged. Summer health career exposure programs must be promoted in collaboration with nearby dental institutions.

If at all possible, counselors for minority students should themselves be from minority backgrounds. Dental schools should select certain faculty members, preferably minority persons, who can relate to minority students and who will be able to assist them. They will be able to help minority students in applying for admission, getting financial assistance, and in choosing the best tracks of study toward a career in dentistry. The schools should provide work-study programs in dental service environments, enrichment programs in the sciences and mathematics, multi-cultural studies and activities, and opportunities for student contacts with other minority students, minority leaders, and especially minority dental professionals.

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Minority people have suffered many disabilities as a consequence of their second-class status. Apathy, hopelessness, and non-involvement have been a contagion among minorities. Fortunately, the idea of contagion in its literal meaning of "the ready transmission or spread of an idea, attitude, or emotion from person to person" has a positive aspect also. Hope, aspiration, and ambition can be transmitted, as ideas, attitudes, and emotions. As the number of minority students in training and in practice continues to increase, more and more youngsters will waken to the knowledge that a career in dentistry is possible for them too. The fact of being black, Chicano, Puerto Rican, Asian, American Indian, or female need not make the possibility of becoming a dentist or other health worker a subject only for daydreams.

"The use of traveling," said Samuel Johnson, "is to regulate the imagination by reality, and, instead of thinking how things might be, to see them as they really are." In recent years, seeing things as they are has meant to the minority child that there was small opportunity for him or her in a society where being white was prerequisite for professional training and success. Seeing things as they are is beginning to mean that the opportunity is there for those willing to make the struggle. Seeing things as they are reveals a health-care system far from perfect, with emphasis falling on ways of making that system more responsive and more equitable. An important part of that process is to make full use of all human resources, of which the most neglected and wasted have been the ethnic minority populations.

In conclusion: I started this presentation by referring to this workshop as the beginning of a journey. It has become clear, I think, that this journey will proceed

along many lines. You will be involved in many different kinds of program developments. The outcomes are not always predictable, nor is the exact course of the endeavor. Galsworthy wrote, "The beginning and ending of all human undertakings are untidy; the building of a house, the writing of a novel, the demolition of a bridge, and eminently the finishing of a voyage." The important thing is that the endeavor be made, and that it be made keeping as closely in touch with reality as perceptions permit.

Such an outlook persuades me that in order to remove barriers that were raised over centuries, we will have to work diligently for many years ahead. The solution to our minority health manpower dilemma is not yet in sight. But this workshop, the efforts that preceded it, and those that are to follow it are starting to alleviate some of the most urgent problems. As you progress, the process will accelerate, for such is the nature of real opportunity. It has a dynamics and a momentum that can make the task easier and more manageable as you proceed.

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CHAPTER I: INTRODUCTION

THE PURPOSE

Many dental schools across the country have recently embarked on a course which could determine the future of minority dental education in the United States. Previously all-white institutions, they have begun to devote special attention to educating minority students in order to alleviate the acute shortage of minority dental manpower. In the words of Dr. George Blue Spruce, these schools have "begun the journey." Though the steps they are taking have been taken before by the Nation's two traditionally black dental schools, these are the first steps taken by predominantly white dental schools. Hence, much of the journey is still uncharted. The dental school administration or faculty that wants to initiate a minority recruitment program or compare alternative approaches to an existing program faces a basic set of questions, including:

- How can qualified minority students be identified and where can they be found?
- What relevance do established admissions criteria have to these students?
- How best can the academic and social needs of these students be met in a structure that has evolved to meet a different set of academic preparations and cultural influences?
- How best can financial assistance be provided so that these students may graduate from dental school without incurring prohibitive indebtedness?
- What are the costs of establishing such a program and how can these costs be met?

The purpose of this report is to explore avenues to [illegible]. It is hoped that this manual will assist the dental schools that have already begun the program and will motivate those that have yet to take the first step.

THE PROBLEM: INCREASING MINORITY REPRESENTATION IN THE DENTAL WORK FORCE

The extremely inadequate representation of Blacks, Puerto Ricans, Mexican Americans, and American Indians in the field of dentistry is well documented. According to Dr. George Blue Spruce, approximately 1,900 of the 141,000 dentists in the United States are black, 130 are Chicanos, and one and a half thousand are American Indian. Thus, only 2 percent of all dentists in the United States are members of these minority groups. Even more critical is the ratio of minority dentists to minority population. For example, the approximate ratio of black dentists to population is [illegible] compared to an overall dentist to population ratio of 1:1,600 (Haney, 1971). Therefore, the minority population of the United States is critically under-utilized in terms of dental health manpower. As a result, the minority population of the United States, especially those persons living in rural areas or in inner cities, have difficulty obtaining even the most minimal dental services.

Until the late 1960s, two traditionally black institutions, Howard University in Washington, D.C., and Meharry Medical College in Nashville, Tennessee, were virtually the sole educators of minority dentists. Even today, they produce nearly one half of the minority graduates in dentistry each year. In the 1972-73 academic year, 400 of the 962 minority dental students in the United States were enrolled at Howard or Meharry (American Dental Association 1972-73 Annual Report).

In 1968, however, a number of predominantly white institutions began to implement programs and policies designed to address the shortage of minority manpower in dentistry. These have included special recruitment and career motivation programs, financial assistance programs, academic reinforcement programs, and altered admissions and retention policies. Often these efforts were stimulated by intensified pressure from the minority community at large, the minority communities near the schools, or minority professionals impatient with the somewhat segregated state of dental education. At other times these efforts were internally generated, emanating from concerned dental school administrators, faculty, and students. In both cases the result has been an increased enrollment of minority students in predominantly white dental schools. Currently 54 of the 58 dental schools in the United States record at least one minority student; out of 106 graduating minority dentists in 1972, 48 received their credentials from predominantly white schools (American Dental Association 1972/73 Annual Report).

Nevertheless, the percentage of minority students in the overall dental student body has shown only a marginal increase in recent years--from 2.2 percent in 1964 to 5.4 percent in 1973. With the exception of Howard University and Meharry Medical College, opportunities for minorities to obtain a dental education are still greatly limited. Further action is needed, including appraisals of existing efforts, continued experimentation with new approaches, and increased application of human and fiscal resources. At the very least, present levels of effort must be sustained if the struggle to attain equal opportunity is to hold significance for aspiring minority dentists.

THE STUDY: RESEARCHING PRESENT APPROACHES TO THE PROBLEM

Until recently, little was recorded about the experiences of students, faculty, and administration at the schools which have undertaken minority recruitment and admissions programs. Little was known about the impact of these programs on the minority students themselves or on basic institutional policies and procedures. Thus, in June, 1972, the Division of Dental Health of the National Institutes of Health contracted with Abt Associates Inc., a firm in Cambridge, Massachusetts, for a 15-month study to document the effects of altering traditional dental school recruitment and admissions policies for minority students (Contract No. NIH-72-4280).* Four dental schools with notable minority recruitment and admissions programs were selected and studied with these four objectives:

1. to identify and document the main components of the special recruitment, admissions, and retention programs in selected predominantly white dental schools;

2. to identify the problems encountered in the implementation of these programs;

3. to construct student profiles of the current enrollees in the programs and attempt to identify performance indicators which can aid in the recruitment and selection of minority students; and

4. to present the research findings with a view toward assisting predominantly white dental schools to plan and implement minority enrollment programs.

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* In a recent reorganization, the Division of Dental Health, renamed the Division of Dentistry, was removed from NIH and transferred to the Bureau of Health Resources Development of the Health Resources Administration (HRA).

Various procedures were designed for meeting these goals. First, exploratory conversations were conducted with the staff and personnel of the selected schools during two series of site visits. These conversations were designed to gather material documenting the main components and problems of the minority recruitment and admissions programs. Second, structured interviews were held with the minority students at the selected schools. These interviews were designed to elicit information concerning minority student backgrounds, dental school experiences, and perceptions of the special programs. Third, academic performance and admissions data were compiled from the minority dental student records. These data were required for the statistical analysis of the factors relating to the success of minority students in dental schools.

Finally, with the support of data compiled and analyzed by Abt Associates, the Dental Health Center in San Francisco (a branch of the Division of Dentistry) sponsored a Workshop on Minority Education in Dentistry on August 22 and 23, 1973. The workshop was attended by administrative officials from 11 dental schools, minority students from five of the dental schools, three (HRA) Regional Dental Program Directors, the Director of HRA's Office of Health Resources Opportunity, and two members of Abt Associates' project staff. The dental schools invited to the workshop have functioning minority admissions programs and relatively high or increasing proportions of minority admissions. In addition to the four dental schools examined in the study (the University of California at San Francisco, the University of Southern California, the University of Illinois and the University of Maryland), the participating schools

included Meharry Medical College, the University of California at Los Angeles, Medical College of Georgia, Harvard University, Columbia University and the University of Detroit.

The chief objective of the workshop was to harness the experiences of representatives from functioning minority programs in an intensive effort to explore and document alternative solutions to their most common problems. This workshop was to be the springboard for a number of future efforts, namely:

1. to assist dental schools in initiating and/or improving programs for minority students;

2. to provide technical assistance in solving problems of recruitment, admission, and retention of minority students; and

3. to develop a foundation for a national strategy for increasing the number of minority dental students.

This report on minority programs in dentistry is one instrument for moving toward these goals. Though obviously not a complete record of either the August workshop or Abt Associates' study, this document distills ideas and information generated by both sources. Many assertions contained in this document were agreed upon by a number of the workshop participants, yet not examined in Abt Associates' study. Our hope is that presenting these ideas will help dental schools with existing minority programs and will also induce action in other dental schools, government agencies, organizations, and individuals.

CHAPTER II: RECRUITMENT

ISSUES

Short-term and Long-term Objectives

The recruitment component of a minority enrollment program is intended to ensure an adequate number of minority applicants to both current and future dental school classes. This purpose requires the dental school to pursue both short-term and long-term objectives.

In the short-term, the program must generate sufficient applications for current classes. Potential minority candidates must be identified, motivated, and assisted in the application process. The longer-term objective is to generate a sufficient level of awareness and interest to ensure a continuing flow of applications. This requires arousing interest in the minority community as a whole, with special emphasis on parents, teachers, professionals, and civic leaders, as well as the minority youth who are the potential applicants.

Interviews with 99 minority dental students underline the importance of pursuing both types of objectives. The students typically began considering a dental career because of the influence of either a family dentist or some close friend or relative, and very seldom because of formal recruitment or counseling channels. On the other hand, such recruitment activities were a major factor in encouraging applications to particular dental schools. Thus, the long-term aspect of the recruitment strategy must interest the individual in dentistry by indirect communication routes, and the

short-term aspect must turn that interest into applications to specific schools.

A Systematic Recruitment Program

A corollary to the need for short- and long-term objectives is the idea that recruitment activities should constitute a systematic program.

The recruitment program is perhaps best viewed in the chronology of the potential student. Before entering high school he should be aware of dentistry as a possible career. By high school age, specific information on dental careers should be available to him. Persons in the community must be able to respond to the student's interest and motivation toward a dental career with perceptions and information from their own experience. Personal contacts, as well as formal information on particular dental schools, must be available as the student considers this part of his career decision. Even after deciding to apply to a particular school, the student may require assistance in the application process and/or continuing contact to maintain his interest.

Each step in this sequence is potentially influenced by a different recruitment activity. The absence of any step may prevent the student from ultimately becoming a dental student. Similarly a critical weakness in any one aspect of the recruitment program might undercut the effectiveness of other parts. Only a comprehensive, coordinated program can reasonably expect to meet both short- and long-term recruitment objectives.

Identifying Recruitment Targets

The minority recruitment program begins by deciding whom to recruit. Regional considerations are an important factor in this decision. For example, students admitted

to the four minority enrollment programs studied tended to reflect the ethnic composition of the areas in which the schools are located. If these four schools are representative of other programs, there may still be a problem of under-representation of American Indians and Puerto Ricans. Further, none of the programs studied was explicitly concerned with recruiting women.*

In implementing a recruitment program, particularly in its short-term aspects, the school will need to decide where and among which groups to look for potential applicants. The characteristics of the students interviewed in this study may suggest concentration points in a recruitment effort. General descriptors are as follows:

1. Over two-thirds of the 99 minority dental students interviewed are black, less than one-third are Mexican American; four are American Indian and five are Filipino.

2. Nearly all the students are male and most are around 28 years old. Slightly more than half are married, and about one-third are veterans. Most of the students come from families with blue-collar occupational backgrounds, although one-third of the students have relatives who are in the health professions.

3. The students tend to have graduated from predominantly white, state-controlled colleges and universities located in the same States as their respective dental schools.

These findings may be read either to suggest particularly likely sources of applicants or as an indication of groups which may be overlooked by current efforts. In the latter case, a school might want to concentrate special efforts on recruiting students from out of State, students from colleges with sizable numbers of minority

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* The program at UCSF now includes women as a recruiting focus.

students, students from private colleges and universities, women students, and minorities who are out of college and in other occupations (particularly the nonprofessional health-related occupations).

APPROACHES

It is impossible to single out particular aspects of recruitment programs which have been implemented with great success. The one reasonable indicator of success is the number of minority students applying for admission, and in all four of the programs studied the numbers increased substantially after implementation of the program. The interlocked nature of the various recruitment activities, however, prevents a judgment about which contributed most to this success. In the following paragraphs, therefore, we will describe approaches to the recruitment problem without comment on their relative effectiveness.

Recruitment Activities

School Contacts. Contacts established with colleges and secondary schools have traditionally been a key part of a recruitment program, and are so for the minority enrollment programs studied. As part of the University of Southern California program, for example, teams of volunteer recruiters are regularly sent to high schools and colleges in the State of California, primarily those in the Southern California area. The University of California at San Francisco program includes attendance at health careers conferences at undergraduate colleges and provides counseling on admissions procedures and requirements to minority students and their advisors. In addition to

this type of contact, the Maryland program has held a minority recruitment conference for representatives of undergraduate colleges to present information about the opportunities for minorities at the school and to provide an opportunity for informal discussions with dental school faculty and minority dental students.

Personal and Organizational Communication. Recruitment efforts at several schools have been aimed at developing personal contacts, professional contacts, and community contacts. At USC, ongoing relationships have been established with numerous groups and programs, including the California Regional Medical Program, the national Black Science Student Organization, the Area Health Education Center, Model Cities, and the National Chicano Health Organization. Similar noncollegiate contacts have been developed by recruiters at the University of Illinois. One such contact is the Council on Bio-Medical Careers, a community-based organization to direct minority students toward careers in the health sciences.

The Media. Publicity transmitted through the news media can also be an important recruitment activity. The UCSF recruitment program, for example, includes articles written in Spanish and English and printed in college, community, and city newspapers. Radio and television spot advertisements are placed locally throughout the year. Whenever possible, recruiters seek to participate in live radio and television talk programs. Besides publicizing specific opportunities in dental schools, the media represent a means of building the public image of dentistry in the minority community. Recent interviews, in which current students indicated the reasons for the choice of a dental

career, suggest that such a campaign should emphasize the following points about the dental profession: professional independence; financial rewards and security; prestige, status, and respect; the chance to work for and with people; the chance to serve the minority community; and the chance to work with one's hands in a technical but creative area.

Early Contact. The comprehensive recruitment program must include an effort to make information on dental career opportunities available to minority students before they enter college. Some current recruitment efforts place special emphasis on motivating minority students at the junior and senior high school levels. At UCSF, for instance, recruiters attend minority-oriented health careers conferences and "health career days" at secondary schools. During these visits, school counselors, department chairmen, faculty members, and students are advised of UCSF admissions requirements and opportunities for minority students. Many schools send posters, brochures, portable exhibits, recruitment films, and slides.

Follow-Up. To make the minority student aware of the opportunities of a dental career and sufficiently interested to apply to dental school is important, but it may not be enough. Follow-up activities are necessary to assure that the student neither loses interest nor "gets lost" in the admissions process. Three general types of activities have been used for this purpose. Special interviews may be arranged for the minority applicant with minority students or faculty members, and the student may be assisted in completing the formal application and related procedures. The second activity is

simply continuing personal contact between the time of application and the final admissions decisions. Finally, a variety of pre-admissions services (see Chapter V) have as a side benefit the function of keeping the students in contact, informed and motivated until the actual time of enrollment.

Organizational Points

Minority recruiters. The ability of a recruitment program to generate minority applications may depend on the extent to which minority persons perform the recruiting functions. Nearly every participant in the workshop agreed that recruitment programs must include substantial support or involvement of minority group members--whether dental school faculty, professional recruiters, students, or professionals in the minority community. It was felt that these persons could best understand the experiences common to the backgrounds of minority applicants, namely lack of basic educational opportunities, exclusion from the mainstream of social life, economic pressures and restraints, and continued rejection and discrimination. The participants felt that the adverse effects of these factors could be minimized if minority presence were increased during both the recruitment and education of dental students. Suggested means of increasing minority involvement were:

1. Attracting and hiring more minority faculty members in order to provide role models for minority applicants.

2. Encouraging cooperation with community-based personnel, particularly minority leaders and professionals who could be utilized as career counselors and sources of information for potential applicants.

3. Encouraging minority dental societies and individual minority dentists to become more directly involved by initiating their own recruitment programs.

Administration. A variety of administrative arrangements have been used to coordinate and implement recruitment activities, and there is little basis at this point for judging comparative effectiveness. Since the choice of an administrative structure is likely in any case to depend heavily upon the particular school's situation, we shall simply describe the arrangements used by the four schools studied in depth.

At USC, all recruitment activities are conducted by volunteers, including minority dental students, faculty members, and representatives of professional associations and community organizations. However, these efforts are coordinated by the dental school's Office of Minority Affairs, which is co-directed by a recent minority graduate of the school and the school's Director of Admissions.

Minority recruitment at UCSF involves the coordinated efforts of three offices: the dental school's Program for the Recruitment, Admissions and Retention of Minority and Disadvantaged Students (RAR), the Special Admissions Counselor (in the dental school's Admissions Office), and the university-level Health Sciences Minority Program (HSMP). However, the co-directors of RAR have overall responsibility for minority dental student recruitment. The RAR staff includes full-time recruiters and administrators who coordinate the recruitment activities of about 20 minority dental students.

At Maryland, recruitment activities are conducted by the Minority Recruitment Committee, which is composed of dental school faculty members, the Director of

Admissions, two representatives of the University-level minority recruitment office, and several minority dental students. At Illinois, minority recruitment is the responsibility of the Coordinating Assistant in Dental Administration, who is also responsible for other aspects of the minority dental students' careers. The Dean of the University of Illinois aids in the screening process.

SUMMARY STATEMENT

Minority recruitment programs should respond to two general points:

- They should encompass both the short-term objective of generating applications for current classes, and the long-term objective of increasing awareness and interest in potential candidates for future classes and the minority community;
- They should systematically deal with the potential candidate from the point of initial awareness of the possibilities of a dental career to the point of enrollment.

Specific activities which can be carried out as part of a recruitment program include:

- Contacts through standard academic channels;
- Contacts through individuals and organizations in the minority community;
- Use of the public media;
- Contacts with students in high school or earlier;
- Follow-up activities including admissions assistance, personal contact and support, and pre-enrollment services.

A variety of organizational forms seem adequate for the coordination and administration of recruitment programs, but it is extremely desirable for minority persons to have some responsibilities in the recruitment process.

CHAPTER III: ADMISSIONS

ISSUES

The greatest controversy about minority programs focuses on the admissions procedures. Should the admission of minority students be handled by the regular admissions committee using standard procedures or should there be a special policy for minorities administered by an independent committee?

The four schools in the study set up special procedures for minority students in an effort to increase minority enrollment. Special methods were instituted on the assumption that traditional methods failed to gauge adequately the potential of minority students.

Setting Admissions Goals

The major goals of the minority admissions process in the schools studied are:

1. To admit capable students who would otherwise be denied admission;
2. To enroll sufficient numbers of minority students so that within a reasonable period the number of minority dentists will be at least proportional to the representation of minorities in American society; and
3. To admit minority students who demonstrate a concern for or willingness to help the dentally disadvantaged achieve adequate dental care.

To ensure that sufficient numbers of minority students are enrolled, some dental schools have adopted minority admissions goals or quotas, workshop participants agreed. Most participants preferred "minimum goal" rather than "quota," a term, they felt, connoted an upper limit.

Admitting minority students with a concern for or willingness to help the disadvantaged is a goal which is vigorously defended by some and seriously questioned by others.

To some, creating dental manpower to serve the socio-economically disadvantaged community is the most important reason for admitting minorities to dental schools. At least one school studied by Abt Associates will not even consider a minority applicant who does not demonstrate a concern for his ethnic group and a desire to go back to his community. Those who oppose this policy do not necessarily disagree with the need to provide more adequate dental services for the poor, but they question whether this is a valid function of the dental school admissions process. They question whether minorities should be obligated to meet admissions criteria which are not imposed on white candidates.

Altering Admissions Criteria

Historically, dental schools have relied primarily on standardized test scores and college grades to determine aptitude and achievement of applicants. But there has been an increasing degree of dissatisfaction with these criteria.

Over the years Howard University and Meharry Medical College have successfully trained thousands of minority dentists. Several workshop participants felt that some of these dentists might not have been admitted to predominantly white schools. Graduates of these schools have proved their competence by passing standardized licensing examinations and performing well in practice.

The validity of standardized procedures as a means of selecting minority dental school applicants was investigated by Abt Associates in a study of 147 minority students enrolled in four predominantly white dental schools since 1968. The most commonly used admissions criteria--preprofessional over-all grade point average (GPA),

preprofessional science GPA and the Dental Aptitude Test (DAT) subscores and averages--were analyzed for their usefulness in predicting the grade point achievement of minority dental students.

This study indicates that traditional admissions criteria are not consistent in predicting the performance of minority or majority students and that they are no more reliable for white than for minority students. It was found that the correlation of college grades, DAT academic average, and DAT manual average with dental school overall GPA for minority students was: .27, .29, and .18. These low correlations are similar to those found in previous studies involving white students (Kreit, 1971).

Although use of traditional criteria may result in errors in predicting performance of students, minority or white, they have some utility. Traditional indicators should be supplemented with other types of information such as that obtained through interviews with minority students. Moreover, the experiences of some schools would indicate that the usefulness of these criteria varies with the insight and flexibility with which they are applied by admissions committees. In short, if the scores are used as absolute judgments or cut-off points, they may be far less useful than if they are used in conjunction with a much broader range of possible indicators of success. Given these results, it is important that setting new standards for minority students or experimenting with non-traditional criteria not be interpreted invariably as a lowering of standards of quality, but as much needed attempts to broaden the range of responsive indicators of student performance.

APPROACHES

The mechanisms employed at predominantly white dental schools for the selection of minority students are as varied as the dental schools themselves. Those discussed in this section have been shown to be relatively effective at the dental schools participating in the Workshop on Minority Education in Dentistry.

Admissions Committee Structure and Operations

In implementing a minority admissions policy, a dental school must first decide whether to establish a special structure for minority admissions. Basically, there are at least three options for the school that wants to ensure minority representation in the admissions process: including minorities on the regular committee, instituting a minority subcommittee, and establishing an independent minority committee.

The simplest method, chosen by the College of Dentistry at the University of Illinois, is to enlarge the existing admissions committee to include minority representatives. At Illinois, the administrative staff member in charge of minority affairs is a full voting member of the Admissions Committee and serves as advocate for minority applicants. The full Committee determines minority admissions; but the minority member and the Dean preselect, and strongly recommend, the minority candidates considered by the Committee. Most participants in the workshop agreed that this kind of power must be given to minority representatives if the same admissions committee is to select both minority and non-minority applicants.

The second method of ensuring minority input in the admissions process is the method used at the University of Southern California School of Dentistry. There

the Admissions Committee is divided into several subcommittees, including two Minority Subcommittees. The Subcommittees interview and screen minority applicants, evaluate minority applications, and submit recommendations to the Committee as a whole. To date, all of the Subcommittees' recommendations have been accepted.

The third method, in use at the University of California, San Francisco, is to establish a minority selection committee which is entirely independent of the regular selection committee. At UCSF, the Committee for the Admission of Socio-Economically Disadvantaged Students (CASED) reviews the applications of all minority students who are eligible for special consideration. CASED may fill a maximum of 25 percent of the total slots in each entering class. However, a minority student can be accepted by the regular admissions committee and not be considered as part of the CASED goal. Also, a minority applicant rejected by the regular admissions committee can still be accepted by CASED.

Pre-Admissions Services

For minority students, pre-admissions services are a critical part of the admissions process. Follow-up on minority applicants is usually conducted by minority counselors in the admissions office or by minority recruiters in close association with the minority admissions committee. With the information contained in recruitment portfolios on minority applicants, counseling assistance can be directed toward each student's unique problems and goals. Some pre-admissions services which have been provided by schools participating in the workshop are: (1) mapping a program of preprofessional study to improve on the applicant's admissions credentials; (2) registering the applicant

for all appropriate pre-admissions workshops and tutoring sessions; (3) making sure that the applicant's admissions and financial aid applications are completed and acted upon; and (4) giving counsel in both academic and financial matters.

Pre-Admissions Interviews

Since minority student potential is difficult to measure by traditional means, most workshop participants stated that pre-admissions interviews were extremely important in the minority admissions process. An interview enables the school to uncover many facts about the applicant's personal background, motivation and handicapping factors (i.e., poor counseling, extensive work obligations during college, segregated school system, etc.), most of which are not included in the standard application. Also, an interview can give the applicant information about the dental profession, the school, the chances for acceptance, and ways he can improve those chances. Only when the purposes and content of the interview are poorly planned does it become a meaningless exercise.

Workshop participants agreed that each minority applicant should have at least two pre-admissions interviews with members of the admissions committee. One should be with a minority student and the other with a minority administrator or faculty member. In this way, the interviews are more likely to be responsive to the needs of both the applicant and the school. If the interview is to be effective as a tool in making admissions decisions, a standardized interview form or rating sheet should be used. This form helps to standardize the types of questions asked by the interviewers

and also provides the admissions committees with a concise record of the interviewers' subjective feelings. If there is a significant difference of opinion between two interviewers, then a third interviewer should be requested.

SUMMARY STATEMENT

The following observations and recommendations can be made about minority admissions policies in dental schools:

1. Traditional dental school admissions criteria--Dental Admissions Test scores and preprofessional grade point average--apparently are not consistent in predicting the performance of minority or nonminority students.

2. At least one school prefers to accept minority students committed to helping their minority communities upon graduation, but some have questioned this special requirement for minority applicants.

3. The inflexible use of traditional dental school admissions criteria tends to restrict the number of minority students admitted.

4. Dental schools should constantly re-evaluate admissions goals and criteria to assure that minority students are being treated fairly.

5. Minority representation on the admissions committee and minority influence on admissions decisions are vital for an effective minority admissions policy.

6. Pre-admissions services, including interviews, should be a part of any minority admissions process.

CHAPTER IV: RETENTION

ISSUES

In a conventional 4-year dental program, the student spends the first 2 years learning basic science in pre-clinical laboratories and lecture halls; the next 2 years are spent in the clinics, fulfilling practice requirements. Both settings place the student under considerable stress to complete a great number of assignments within a limited time frame. For the student who must also make up for a poor educational background or deal with a disturbing social situation, the workload can be nearly crippling. The question for the dental school is: What can be done to develop this student's latent qualifications and ensure his successful graduation as well as his emotional well-being?

Until recently this question was not often considered by dental schools. In fact, students who would require individual attention or support usually were not admitted and thus the most challenging problems of retention were avoided. However, in the late 1960s several movements -- including a general wave of reforms in higher education and increased minority enrollment in dental schools -- led a number of persons to realize that many students who are not qualified in the traditional sense are nevertheless qualifiable. That is, if given compensatory training, a little support and extra training time, these students will graduate to become thoroughly competent dentists. The questions now are: Which students actually need special learning support? What kind of support do they need? How can we best provide support to the students who need it? Will the students use the support services we provide? If so, will these services indeed contribute to student success?

Approach to Support Services

The initial, and at present chief, beneficiaries of academic and social support services in dental schools are minority students. Notwithstanding this fact, many schools have found that minority and non-minority students alike seek support. One dental school dean remarked at the Workshop that he had his "hands full keeping competent white students out of my tutorial sessions." To be sure, it is an unfounded contention that only minority group persons require special attention, and it is definitely a mistake to assume that all minority applicants to dental schools are either educationally or economically disadvantaged. Minority students may not use the services because they resent being stereotyped as special students. Furthermore, non-minority students will miss out on distinct educational advantages. Basic to any support system, then,is the realization that any student may require support at some time during dental training, be that student black, white, Chicano, Puerto Rican, Oriental, or American Indian. At the same time it is logical to discourage outstanding students of all races from using these services, in order to reserve them for students who really require support.

Probably the most important adjunct to retention is that the student maintain his self-esteem and confidence. The recipient of support services should not feel singled out as deficient. Above all, the services should be made available to all students regardless of race.

Considering Curricular Reforms

Sometimes a major reexamination of the system which occasions the need for adjunctive support services is in order. Until recently, there was little impetus for change

in the standard 4-year dental curriculum. The philosophy was: If the courseload seems to be too rigorous, admit students who are more talented. Even worse, in some schools the policy was to "grade on the curve" and then flunk the lower 10 - 20 percent of the class. This policy was defended as a way of maintaining standards. But in the late 1960s the general concern for curricular reform, coupled with the immediate needs of minority dental students, resulted in a tendency toward greater flexibility in the dental curriculum. Today students in many dental schools are given more freedom to pace themselves instead of being forced into a lockstep, 4-year program. Provided with various opportunities for independent learning, remedial or advanced work, and adjustments in courseloads and schedules, the students may graduate in as few as 3 or as many as 6 years.

As opposed to adjunctive support services, which are student-directed (i.e., intended to improve the student's academic abilities), curricular reforms are program-directed (i.e., intended to improve the education program itself). The best retentive effort combines a little of both approaches. However, two consequences of the second approach must be noted, namely, the difficulty of projecting future class enrollment and the danger of unconsciously discriminating against minority students. One must be careful not to place minority students in special programs because of presumed deficiencies, particularly since reduced courseloads and extended schedules can create the false impression that a student is incompetent. More important, one must be very sure that extended schedules are not used as an excuse for withholding the assistance that would enable students to remain in the regular program.

Handling Social Relations

In recent years, institutions of higher education have begun to feel responsible for the emotional as well as the intellectual well-being of their students. Dental schools are beginning to view students as whole persons; they are beginning to realize the tremendous impact a student's emotional outlook and social situation have on academic performance. According to this view, a support system must include provisions for emotional and social support as well as academic support.

The psychological stresses of the dental school environment are exacerbated for minorities by their most serious apprehensions, racial prejudice. The actual presence of prejudice in dental schools may not be the issue in all cases; the important point is whether the students perceive prejudice. From interviews with 99 minority dental students, Abt Associates found that nearly two-thirds felt they had been personally discriminated against at least once during their dental training. Most of the described incidents of discrimination involved apathetic-to-hostile faculty attitudes, discrimination in grading, difficulties in securing equal assistance from clinical instructors, and subtle social discrimination. Unfortunately, some dental schools are still relatively unequipped, at least formally, to deal with this situation.

Such issues are, of course, extremely difficult to confront on a formal, institutionalized basis. In most cases, informal kinds of support, such as conversations with minority faculty members, sympathetic members of the administration staff such as the minority admissions staff, or other students, appear to be the only sources of help in these circumstances. While it is not clear how best to approach either subtle occurrences or perceptions

of prejudice on an institutional basis, the need to explore some formal approaches to these problems is manifested, if only by the frequency with which instances or perceptions of discrimination are cited by minority students.

Developing a Supportive System

A major step in the evolution of support services is the conversion of a group of special offerings for the educationally disadvantaged into an integral part of the supportive system for all students. A supportive system consists of a network of components for identifying students in need of academic or social support, referring each student to the appropriate provider component, providing the required services, and monitoring the student's future progress. One of its chief benefits is that no initially defined group is singled out for attention; instead, the system is inseparable from the routine operations of the educational program.

APPROACHES

Pre-Enrollment Programs

The transition from predental studies or employment to the dental curriculum is difficult for most students; it can be particularly disturbing for minority students unsure of their welcome in a predominantly white environment and for educationally disadvantaged students uncertain of their academic capabilities. Therefore, support services for these students often begin as early as the summer preceding the freshman year. Pre-enrollment programs at schools participating in the workshop vary from 1-day orientation sessions to 6 to 8-week programs of intensive academic reinforcement. In all of these programs, the purpose is to reduce student apprehensions about the dental school environment and curriculum.

All four of the schools studied by Abt Associates have formal summer pre-enrollment programs. At the University of Maryland, for example, a 7-week academic program is conducted each summer for students selected on the basis of low entering GPAs. Besides providing an adjustment period prior to the school year, this program supplies the students with the opportunity to complete a portion of their first trimester credits. The course content in 1973 included: biochemistry, offered for full credit; dental anatomy and basic clinical sciences, offered for partial credit; and a packaged program of reading and study skills training.

Other pre-enrollment programs are more specifically designed for minority students. At the University of Illinois, black students participate in a special orientation program centered on the operations of the dental school and problems anticipated by the students. In short, an attempt is made to familiarize the student with the environment from a minority perspective.

In-School Academic Reinforcement Programs

In addition to pre-enrollment programs, some schools have mounted academic reinforcement programs which take place during the school year. Their purpose is to offset inadequacies in preprofessional academic preparation by developing the student's reading and study skills. The trend is for schools to purchase packaged programs. Because the content of skills reinforcement is not specific to dentistry, these programs can be shared with other professional or undergraduate institutions thereby reducing the cost.

Tutorials

Most of the schools participating in the workshop offer tutorial assistance to students who encounter difficulty with either academic or clinical courses. Approaches to the provision of assistance vary primarily in whether the tutors are paid or volunteer, students or faculty members. At UCSF, for example, the advantage of using dental students as tutors is the presumed kinship between the student and the tutor, particularly if they are members of the same ethnic group. On the other hand, tutoring places an additional burden on students who have to contend with their own academic programs. An interesting concept in tutoring is the full-time tutorial faculty. At the University of Maryland, two faculty members are paid to devote full-time to tutorials. One faculty member specializes in basic sciences, and the other specializes in clinical sciences. The basic sciences tutor spent two semesters familiarizing himself with the dental curriculum from the student's point of view. During this time, he attended classes, organized lecture notes, read course assignments, took course examinations, and also conducted daily study seminars. The clinical sciences tutor works with students in the clinics, monitoring their technical progress, encouraging them to attempt new procedures, and building their self-confidence.

Academic Counseling

As stated earlier, supportive systems must include components for identifying students in need of support, referring them to the appropriate provider component, and monitoring their future progress. In other words, some sort of academic counseling system must be developed. This system should be designed to probe individual academic problems

and convert the feedback into corrective action. A common experience in dental schools is that feedback on student performance often comes too late to be of corrective import. The purpose of an academic counseling system is to pinpoint students in academic difficulty before failing grades are reported.

At the University of Maryland, counselors appointed by the respective academic departments prepare progress reports every 6 weeks on the students who are not maintaining "C" averages. Copies of each progress report are distributed to the student, the department, and a Coordinator of Student Counseling. Each department provides tutorial assistance in its own courses, but the Coordinator organizes this assistance when one student is failing in several departments. Usually, he will also recommend such a student to the Special Programs Committee. This committee, composed of faculty members and representatives of the various support services, was originally created to arrange the individual academic programs of the school's first minority students. However, the committee presently coordinates special programs for any student in academic difficulty. It has the authority to recommend a number of alternatives, including summer remediation, course repeats, reduced courseloads, leaves of absence, special tutorials and other counseling. Also, in lieu of the regular advancement committees, it decides the promotion and graduation of students under its supervision.

Another approach to academic counseling capitalizes on the personal relationship developed between students and a minority recruiter, program administrator or faculty member. In these circumstances, one person is involved in all facets of a student's well-being -- personal, social and academic. By interacting with the students on an informal, day-to-day basis, this person closely observes academic progress, identifies sources of

difficulty, refers students to formal tutoring or counseling resources, and intercedes with instructors and committees when necessary. This approach to academic counseling has its advantages -- in that it ensures individual attention to each student; however, it is obviously difficult to institutionalize.

Independent Learning Centers

An independent learning center allows students to cover independently the information included in their courses. For example, the University of Maryland has a Center equipped with self-instructional materials in a variety of media, including synchronized cartridge/tape programs, programmed books, filmstrips, records and tapes. The Center is a resource for all students but has been proven to be particularly helpful to students in academic difficulty.

Social and Psychological Support

The presence of a personal counseling system and other social supports can alleviate problems which sometimes hamper academic performance. Some of the measures which have been employed by schools represented at the workshop are:

- Personnel counselors and advocates at the dental school.
- Counseling Centers. Formal counseling is sometimes provided on a university-wide basis through student affairs offices, student health centers, or specialized counseling centers. At the University of Illinois, for example, the Counseling Center for the Medical Center campus offers both psychological and academic counseling to students enrolled in all of the professional colleges on campus. Under the supervision of one of the Center's psychologists, students can participate in Academic Improvement Groups designed to help them adjust to the professional school environment. These groups exist in two forms -- one which helps the student confront emotional and social situations, and one which is more skills-oriented.

- Minority Faculty Recruitment. Though not considered a support service, minority faculty recruitment is an important adjunct to minority student recruitment. Minority faculty are essential as role models for minority students and as promoters of ethnic and sociocultural awareness among non-minority faculty. Three of the four schools visited had undertaken formal efforts to recruit minority faculty. At UCSF, for example, 15 minority faculty members were recruited in an intensive campaign in 1973 alone. The University of Illinois makes an effort to recruit its own minority graduates for faculty positions.

- Seminars in Social Awareness. At least one minority recruitment program has been funded to provide "seminars in social awareness" for both minority and non-minority faculty and students. The purpose of the seminars is to make the school's dental program more responsive to minority students and to the minority community. Topics to be discussed in weekly seminars include: life in the ghettos, "barrio" economics, health problems of the inner cities, and minority participation in the health professions. Members of the minority community have been invited to participate in and help plan the programs.

- Participation in Community Projects and Clinics. Dental student participation in community projects and dental clinics can serve a twofold purpose: first, the student can reinforce his ties with the ethnic community, thereby strengthening his sense of well-being (which may have been weakened by the predominantly white dental school environment); and second, the student has the opportunity to influence community clinics toward becoming more sensitive to the needs of minority populations.

SUMMARY STATEMENT

The following recommendations may be made for a minority retention program:

1. Retention services should include provisions for psychological as well as academic support.

2. Administrators should be careful in placing minority students in special programs because of presumed deficiencies since not all require special attention.

3. Support services should be an integral part of the dental curriculum and available to all students. They should include procedures for identifying students in need of support, referring students to appropriate services and monitoring future progress.

4. Felt racial prejudice persists as a major source of minority student dissatisfaction and all dental schools should be equipped to cope with this problem.

5. Schools with minority retention programs provide some of the following services:

   - o Pre-enrollment academic and social orientation programs.
   - o In school academic reinforcement programs.
   - o Tutoring in both academic and clinical courses.
   - o Academic counseling.
   - o Summer clinics and courses, usually for remediation.
   - o Adjusted courseloads and academic counseling.
   - o Personal, social and psychological counseling.
   - o Other social support programs.

CHAPTER V: FINANCE

ISSUES

Two facts are clear: the cost of a dental education is prohibitive for most minority students and insufficient funds reaching minority programs in dental schools is a limitation on minority enrollment.

The Chairman of the Minority Recruitment Committee at the University of Maryland has succinctly stated the financial problems facing minority programs in dental schools:

> The outstanding irony of minority recruitment programs is that as these programs become more and more successful, the more likely they are to ultimately fail. Since almost by definition minority student recruitment involves the programmatic attraction of economically disadvantaged students to academic programs previously inaccessible to them, financial support must be made available to defray expenses for these students throughout their professional training periods. If this support is lacking, minority students with limited personal resources may well be forced to withdraw from school or not consider applying in the first place. Minority recruiters may see their programs crumbling before them.

The Student Need

Several factors appear to account for the ever increasing need for financial aid to minority students. The first, which is common to the entire student population, is the very high cost of obtaining a dental education. During Abt Associates' survey, conducted in 1972 - 1973, 99 students at USC, UCSF, Illinois and Maryland admitted from 1968 to 1972 indicated that the total cost of a 4-year dental education (including living expenses for themselves and their dependents) would amount to an average of $31,044. For one

student at USC, the cost ran as high as $42,000. Suitable figures for comparison are reported in the booklet, Admissions Requirements of American Dental Schools, 1972/73. According to the booklet, the total cost of a 4-year dental education can vary from $15,900 to more than $42,800, depending on whether the student attends a public or private school, whether he or she is married, and whether his or her home is near or far from the school. Other variables are a student's personal standard of living and the rising cost of living.

While the problem of rising costs is common to all students, minority dental students as a group appear to face some obstacles which non-minority students do not. Unlike most dental students, minority students appear to be able to count on very little financial support from their families. The student interviews revealed that 53 percent of the students came from blue-collar families; an earlier study by Linn found that 65 percent of the black dentists surveyed came from blue-collar families. By contrast, consistent findings from three studies of non-minority students (Fusillo and Metz, Pavalko, and Fredericks and Mundy) were that approximately two-thirds of each sample group came from middle or upper class backgrounds, and over 70 percent came from families where the father's occupation could be classified as white-collar. In terms of family income alone, then, minority students are likely to have much more limited resources to meet the costs of the 4-year dental program.

The extent of the financial burden experienced by must minority students was revealed by the individual student's estimates of their total indebtedness at the time of graduation. The estimates ranged from $5,716 at Illinois to $15,300 at San Francisco,

but the average, at $12,180, was substantially higher than the $10,000 ceiling considered acceptable at the University of Southern California for example.

The minority student's financial need is exacerbated by other pressures. These pressures are both academic (e.g., the pressure to fight the lower quality image associated with separate admissions standards) and social (including some of the problems discussed in the context of retention services). Both pressures have the effect of reducing the student's available time, and thus reducing his ability to earn part of his dental school expenses. Conversely, many administrators fear that an insufficiency of funds will force the student into part-time work and thereby increase the likelihood of poor academic performance or social difficulties.

The third factor in the need for more financial aid resources is recent changes in Federal policy regarding support for health professional students. The Federal Government, which is by far the most important source of financial aid, increasingly relies on a policy of providing funds through loans rather than scholarships. Furthermore, Government reorganization has induced confusion within dental schools over the agency responsible for funding minority program proposals. The prevalent opinion among workshop participants is that cutbacks in Federal Funding are imminent; the question is when and how much.

The Mysterious Funding Process

Although each of the 4 schools visited as part of the Abt Associates study has a different mechanism for handling financial aid for minority students, they share one common characteristic. In general, it is very difficult for dental school administrators to know

exactly how much financial aid money is available, and what formulas are used to determine its distribution. Aid is usually administered from a pool of funds made available from outside sources such as Government or Foundations. Since most dental schools are components of medical science complexes, financial aid is typically administered on a campus-wide basis, and thus is difficult for individual schools to trace.

That the sources and distribution formulas are not better known has also generated some student mistrust of financial aid offices; for example, suspicion persists among some minority students that whites are receiving more non-repayable support than minority students. Fifty-one percent of the students interviewed expressed perceptions of unfair treatment on the part of their schools regarding financial assistance. Some of the reasons they gave for feeling unfairly treated include misrepresentation or uncertainty of aid, unfair distribution of aid, insufficient scholarship money compared to loans, and insufficient total aid. Although it is impossible to say on the basis of the data collected to what extent their feelings are justified, if at all, it seems apparent that at least part of their perceptions can be accounted for by poor information on financial aid processes.

The Program Need

The need to finance minority enrollment program activities is as real as the student's need for financial support. Each of the program components discussed here -- recruitment, admissions, retention -- involves activities beyond those which would normally be part of a dental school's enrollment functions. Each therefore presents a need for funds which would not normally be budgeted.

Of the three components, it is the retention service which tend to impose the highest costs. Major external grants have generally gone to subsidized auto-tutorial

systems, curriculum design, faculty and student tutors, minority faculty recruitment, personal counseling systems and study-skills programs. Recruitment activities have been a secondary funds recipient.

The retention services often encounter financial problems because student demand is beyond that which was anticipated, not because minority student utilization of the services was under-estimated but because the services were being used by other students. One workshop participant stated: "The increasing numbers of white students attending remedial or tutorial sessions is a real problem. Our program simply was not designed for so many students."

The demand for special services by non-minority students and the tendency in some of the schools studied for elements of the minority enrollment program to become institutionalized into the regular program, suggests that part of the answer to the financing problem may be to reduce the separateness of the minority program. An integrated approach to activities such as retention services relaxes the need to set priorities, and at the same time reduces the costs inherent in a segregated educational system.

APPROACHES

Scholarships-loans-jobs

In attempting to make it possible for students to pursue their dental school education, it is usually necessary to strike a balance of grant, debt and work support made available. The clear preference is for grants, but these are limited by funds available. The disadvantage of a loan is the burden it places on the student when he finishes school; the problems of part-time work have already been noted.

No magic formula for balancing these factors has been found, but it is worth reviewing the activities of the schools covered in the Abt Associates study. Two of the four schools have attempted to get indebtedness ceilings. At USC it is felt that indebtedness should not exceed a total of $10,000, and the University of Maryland attempts to limit indebtedness to $1,000 per year for single students and $1,500 to $2,000 for married students. Maryland also attempts to hold financial aid packages for minority students to a 4:1 ratio of scholarships to loans, as compared to a 3:1 ratio for other students. Part-time work is one option for reducing indebtedness; however, two of the four schools actively advise against part-time work, although one will assist students who have no other means to find employment. A third school, UCSF, offers work-study options to dental students, and also pays students for recruiting and tutoring activities. The consensus at the schools and at the workshop was that part-time work imposes an excessive burden on most minority students. However, participants in the workshop indicated that they are often forced to permit and even encourage students to obtain part-time employment or work-study arrangements.

Sources of Financial Aid

Federal Funding

There are several sources of Federal assistance to health professions students, of which the major one is the Health Professions Education Assistance Act scholarship and loan funds. These monies are made available through the dental schools. One of the problems administering this program has been that the definition of a "needy" student varies among schools. Some participants felt that minority students do not get an

adequate proportion of the scholarship funds available under the Act. Of the students interviewed by Abt Associates, 75 percent had received Health Professions Loans, and 31 percent had been awarded Health Professions Scholarships.

Health Professions Scholarships are allocated to schools on the basis of one of two formulas: either 10% of the estimated student enrollment multiplied by $3,000, or $3,000 multiplied by the number of students from low-income backgrounds, whichever is greater. The loans are not granted on a formula basis; rather, each school requests an amount, and the Bureau of Health Resources Development distributes a pro-rated percentage of its allocated funds to the dental schools. The loan program has forgiveness clauses for students who are forced to drop out before completing their education, or for students who agree to serve in underserved areas after graduation.

Financial aid also is available under the Armed Forces Scholarship Act of 1972 for medical and dental students willing to serve one year in the service for each year of school. Successful applicants join the service as second lieutenants and receive pay at that rank while in dental school. For American Indians, the major source of Federal aid is the Bureau of Indian Affairs grants-in-aid program, the criteria for which include the requirements that the applicant be at least one-fourth Indian and enrolled on his tribal reservation. Federal scholarship support is expected to be available for students willing to join the National Health Service Corps and serve in shortage areas.

Other loan funds for the health professions include federally guaranteed loans under Office of Education by states, banks or other lending institutions authorized under

the Higher Education Act of 1965 as amended, under which the Federal Government may cover the seven percent interest rate while the student is enrolled in an accredited program.

Regional Dental Program Directors will assist schools interested in initiating or strengthening ongoing programs for minority students to identify Federal grant funding sources and help them to obtain the forms necessary for completing their applications. Following is a list of addresses and regions for all Regional Dental Program Directors.

DHEW REGIONS	ADDRESSES	STATES WITHIN REGION
Region I	J.F. Kennedy Federal Bldg. Boston, MA 02203	Connecticut, Maine, Massachusetts, New Hampshire Rhode Island, Vermont
Region II	Federal Building 26 Federal Plaza New York, NY 10007	New Jersey, New York Puerto Rico, Virgin Islands
Region III	P. O. Box 13716 Philadelphia, PA 19101	Delaware, District of Columbia, Maryland, Virginia, Pennsylvania, West Virginia
Region IV	50 Seventh Street, N.E. Atlanta, GA 30323	Alabama, Florida, Georgia, Kentucky, Mississippi, N. Carolina, S. Carolina, Tennessee
Region V	300 South Wacker Drive Chicago, IL 60606	Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin
Region VI	1100 Commerce Street Dallas, TX 75202	Arkansas, Louisiana, New Mexico, Oklahoma, Texas
Region VII	601 East 12th Street Kansas City, MO 64106	Iowa, Kansas, Missouri, Nebraska
Region VIII	3034 Federal Office Bldg. 19th and Stout Street Denver, CO 80202	Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming
Region IX	Federal Office Building 50 Fulton Street San Francisco, CA 94102	American Samoa, Arizona, California, Guam, Hawaii, Nevada, Pacific Trust Territories
Region X	Arcade Plaza Building 1321 Second Avenue Seattle, WA 98101	Alaska, Idaho, Oregon, Washington

State Assistance

State assistance to students is available in a wide variety of forms. Nearly all States have legislated guaranteed Student Loan Programs which are administered primarily through local banks. However, State-guaranteed bank loans tend to carry high interest rates. In addition to these loans, States commonly offer scholarship aid in the form of reduced tuition for residents, tuition and fee waivers for residents, and a few special grants. Examples of the latter type are the New York Regents Scholarship for Professional Education in Medicine, Dentistry, or Osteopathy, which provides 20 dental scholarships annually, of $1,000 per year for the 4 years of dental school. The State of Maryland offers State Professional Scholarships, for which all professional students registered at the University of Maryland at Baltimore and who are residents of Maryland are eligible.

Some states have formed regional boards of higher education to organize interstate arrangements for sharing higher education facilities. Examples are the Western Interstate Commission for Higher Education and the Southern Regional Education Board. Students who are residents of the member states are treated as in-State students and pay reduced tuition rates. The State Governments pay the difference.

Foundations

As funds from Federal sources become increasingly constrained, dental schools are looking toward foundations as a primary source of student financial support. Two sources of foundation support specifically designated for minority students are the American Fund for Dental Health (AFDH) and the Robert Wood Johnson Foundation.

The AFDH, which is affiliated with the American Dental Association, provides undergraduate scholarships for disadvantaged minority students wishing to enter the dental profession. The scholarships commence in the final year of predental education, to attract students who otherwise might not have considered a dental career, and run through the full 4 years of dental school. Up to $2,500 per student per year may be made available, for a total of $12,500. The AFDH scholarship monies are donated by a variety of foundations, businesses and industries; AFDH also has some loan funds available to students at the 48 dental schools who participate in the ADA-AFDH Student Loan Fund. The AFDH scholarship funds were cited by all four schools visited by Abt Associates as being a primary and critical source of financial aid.

In addition to the funds available from the usual sources under AFDH, the Robert Wood Johnson Foundation recently contributed approximately $10 million to AFDH for student loans and scholarships. These funds are to be divided equally between loan and scholarship funds and spread over a 4-year period. The Johnson Foundation monies are earmarked for minority students or for students who will contract to practice in a shortage area. These funds have been a welcome source of aid to most dental school financial aid programs even though there is no assurance that the monies will be continued after the initial four-year period of the grant has expired. In one case -- the University of California system -- Johnson funds have been refused on the grounds that the Foundation's guidelines for disbursing the money used race as a criterion and thereby violated the Civil Rights Act.

In addition to these two major sources of foundation support, there are a number of smaller foundation-sponsored grant or loan programs. These include loan funds available from the American Dental Trade Association and from the International College of Dentists; the SIRCAL Graduate Loan Program sponsored by Milburn Industries; United Student Aid Funds, which endorses loans made by students' hometown financial institutions; and the American Indian Scholarships, Inc., which provides scholarships for American Indian medical and dental students. One of the students interviewed by Abt Associates was supported by American Indian Scholarships, Inc.

Dental Societies

Additional funds for student financial aid, usually in the form of loans, are often available through State or local dental societies. A number of States, as well as the AFDH, are interested in using as a model the loan program developed by the Dental Foundation of California, which provides a maximum of $2,000 per year up to a cumulative total of $10,000. In certain other instances, such as the Smith-Holden Scholarships, funds are provided by industry for administration by State dental societies. None of these monies are earmarked specifically for minority students.

Dental Schools and Universities

Most dental schools have some funds of their own for the provision of financial aid to students. These funds come from a variety of sources, including university funds (State grants or tuition), alumni funds, and memorial funds. Often, the students do not know the source of their own awards, since letters of award from the financial aid offices may only state the amount of support and whether it is in loans or scholarships.

The schools which were visited exhibited a wide variety of university-sponsored financial aid, some of which was designated for minority students. The UC system, for example, sponsors the Health Sciences Minority Program (HSMP). Start-up funds for this program were provided by the U.S. Office of Education's Equal Opportunity Grant Program. Now financed by the UC system, HSMP provides aid to disadvantaged students of all races in UC's health professional schools. HSMP will provide 10 percent of each student's total financial aid eligibility, or a minimum of $200 and a maximum of $600. At USC, the Disadvantaged Dental Students Fund (DDS Fund) provides support to nearly every minority dental student at USC, and is widely credited for the success of the USC minority recruitment program. The DDS Fund was initiated with $60,000 raised by a former dean of USC's dental school and matched two for one by the University Associate Fund. In addition to these scholarship and loan sources earmarked for minorities, UCSF offers assistantships to dental students; it is the only school visited where they are available to undergraduate students. Also, UCSF provides a variety of academic and administrative jobs for minority students, such as participation in recruiting, tutoring in pre-clinical laboratories, and acting as "educational assistants" to tape lectures or to do transcribing and tutoring.

Other sources of financial aid which were cited by the student interviewees, although they were not restricted to minorities, include the University of California Regents Scholarship and President's Scholarship, the University of Illinois Alumni Association Scholarship, and the Dean's Scholarship Account at the University of Maryland, as well as a variety of university grants, loans and tuition and fee deferments.

Sources of Program Funding

There appears to be no single source of funding likely to be available for all programs, and in few cases will a program be able to cover all activities with funds from one source. This is demonstrated in the funding pattern for the four schools covered by the Abt study.

USC

The University of Southern California claims that its minority program is threatened by recent cutbacks in Federal aid. Its Special Projects Grant from BHRD was renewed in 1973, but for only 60 percent of its value the previous year. Funds from this grant support tutorial and other retention services for minority students. In addition the school has lost a grant promised to it by the Los Angeles Model Cities Program, which has recently been discontinued. At the time of the site visit in May, 1973, another federal grant was pending -- an HEW Special Health Careers Opportunity Grant. However, Dr. John Vinton, a co-director of the school's Office of Minority Affairs, stated at that time: "Essentially all our Federal money is unstable. You can't build a sound program around it, so we have recently started to get our own money."

Fund-raising activities at USC have been conducted by the minority dental students themselves, by the new and the former dean of the dental school, and by the director of the Disadvantaged Dental Students Fund. Besides seeking Federal grants, the fund-raisers have made special appeals to foundations, university associations, and local dental societies. Ethnic minority dentists in the Los Angeles area have been asked to hire minority dental students as assistants in their private clinics. In addition, the minority dental students have held several fund-raising events.

UCSF

Two Federal grants help to support the UCSF minority program. One is a Special Projects Grant from the Bureau of Health Resources Development, Health Resources Administration. The $310,000 awarded since 1972 finance the school's Program for the Recruitment, Admission and Retention of Minority and Disadvantaged Students. A Grant Advisory Committee, made up of faculty members, administrators and minority dental students, is responsible for administering the funds and applying for grant renewals. Other fund-raising duties are assigned to the RAR program directors.

The Office of the Dean administers the second grant obtained from the Health Resources Administration. These funds, which have provided between $30-50,000 each year since 1972, were granted for the specific purpose of supporting minority student tutoring and recruitment activities.

Illinois

The only expenses directly related to minority activities at Illinois are the salary and traveling expenses of the Coordinating Assistant in Dental Administration. These expenses are included in the operating budget of the dental school.

Maryland

Maryland received its first Federal funds in 1969, when OEO granted the dental school $25,000 to launch a summer program for entering disadvantaged students. Since then, the summer program has been supported solely by the university.

In 1972, the school was awarded a $200,000 special projects grant from BHRD. This grant finances some of the Minority Recruitment Committee activities, pays the

salaries for the Special Tutorial Faculty, and buys auto-tutorial materials for the Independent Learning Center.

Other activities are funded out of the dental school's operating budget. Little expense is directly related to minority retention programs since they are integrated into the regular educational program for all students. Faculty committees bear most of the responsibilities for minority affairs so there is no affairs office or staff to finance.

SUMMARY STATEMENT

1. Lack of funds for institutional support and student assistance is a major obstacle to increasing minority representation in dental schools.

2. Based on a survey of 99 students at 4 schools by Abt Associates, the average total cost of a 4-year dental education was approximately $31,044 for students admitted from 1968 to 1972.

3. The Abt survey revealed that the minority students anticipated a mean indebtedness at graduation of $12,180.

4. Approximately half of the 99 students interviewed in the Abt Associates survey felt that they had been unfairly treated in terms of financial assistance.

5. Financial aid program officers, pressed for funds, are sometimes tempted to emphasize student employment; consequently, the quality and continuity of minority dental training suffers.

AFTERWORD: THE STUDENT PERSPECTIVE

Closing remarks at the Workshop on
Minority Education in Dentistry, by
Mr. Matthew Plummer

INTRODUCTION

In the preceding sections of this report, we discussed four major types of institutional mechanisms which have been developed to address a basic social issue, namely recruiting and preparing more minority students for careers in dentistry. With problems of such complexity, there is always the danger that the mechanisms intended as solutions will assume a life of their own. In other words, it becomes easy to lose sight of the basic issues while concentrating on details of structure, functions, budgets, staffing, and proper allocations of responsibility. Under these circumstances, it is necessary to highlight the issues which generated the mechanisms in the first place -- in this case, the heavy social and academic odds faced by individual minority students aspiring to careers in dentistry.

In this section we present the concluding remarks delivered by Mr. Matthew Plummer at the Workshop on Minority Education in Dentistry. A minority dental student, Mr. Plummer addresses the basic issues which confront the individual students and sets the tone for future efforts to ease the entry of minorities into the dental profession.

Concluding Address by Mr. Matthew Plummer
at the Workshop on Minority Education in Dentistry

On behalf of the minority students present, I would like to take this opportunity to express our sincere appreciation for the quality and variety of new ideas and concepts you have provided us with concerning minority dental education and for the dedication and loyalty you have shown in the recruitment, admission, matriculation and graduation of minority dental students.

In these last remaining minutes, I shall make a brief attempt to address myself to several problem areas minority students are forced to deal with while attending white dental schools -- problems which uniquely affect minority students and which must be recognized as additional burdens minority students must bear during their matriculation. I present these problems with the conviction that open admission of their existence and concern for their solution, rather than quiet denial, may offer future classes of minority students a much less traumatic dental school experience.

The problem areas I have chosen to discuss are continual resistance and hostility toward minorities, lack of role models for minority students, the relationship of faculty expectations to student performance, and exclusion of minorities from the student culture. These problem areas transcend the structural existence of minority programs and yet may be found waiting in the shadow, in the corner, in the dark, to inject poisonous venom into the heart of each minority program, regardless of its structural and administrative perfection.

Continual Resistance and Hostility

More often than not, the minority student attending a predominantly white school finds himself asking the question, "How does one fully relate to a traditionally hostile environment?" The answer is simple: one does not. Add to this the pressures of dental school, and the foundation has been laid for the making of a neurotic minority student.

Resistance and hostility may be manifested in other ways as well, such as academic or financial reprisals for not changing one's hair style or for participating in community activities which are viewed as too political, exclusion from all but the most formal social activities of the school, and the inability to get help from a clinical instructor when dealing with a difficult patient. When these situations occur, administrative and faculty support for the minority student is of the utmost importance.

Students should be aware of this support long before any problems arise. The appointment of minority persons to school positions, such as assistant dean of students, chairman of the admissions committee or director of financial aid, indicates significant attitudinal changes on the part of the institution, and is the type of support necessary and basic to many other changes yet to come.

Lack of Role Models

The problem of self-concept and role image for the minority student is a major one. To illustrate this point I would like to share with you the results of

a survey of the preprofessional motivation and counseling experiences of minority college students I did several years ago. I used white medical and dental students as the control group. Over and above the apparently universal and socially acceptable motivation of altruism, I detected in the control group several dominant answers to the question of how the student first became interested in the health field. I present them here in no particular order.

1. The student's father, uncle, brother or another close relative was in a health profession.

2. The family doctor or some physician was a close personal friend or friend of the family.

3. The student felt a very strong association with a health professional who had been instrumental in the recovery of the student or his father or mother from a serious illness.

4. Someone in the immediate family wanted him to become a doctor and projected that role image from early childhood.

5. A high school counselor or teacher suggested that the student would do well in the health area.

6. He was influenced by a college advisor who usually had an M.D., D.D.S., or Ph.D. degree.

The most striking thing about all six of these factors is that they are not readily available as incentive or motivation for most minority students. The absence of minority role models is a critical problem.

The Relationship of Expectation to Response

In the April 1968 edition of Scientific American, Rosenthal and Jacobson published the results of an experiment which tends to support the general thesis that whatever is expected of a student by his teacher becomes the determinant of what the student accomplishes. Briefly, the experiment consisted of telling elementary school teachers the names of randomly selected students who were expected to be achievers or non-achievers. The students were tested twice during the school year to determine their progress. The results indicated that the students designated as achievers gained significantly more in grades and in I.Q. points than students who had been designated as non-achievers. This suggests that the teacher's expectations and evaluations of the student are enormously significant in determining the outcome of the student's educative experiences. There are obvious applications of these results to the educational experiences of minority students in dental school.

Exclusion from the Student Culture

Dental school is an ideal environment for the development of a closed student culture. The student culture I refer to develops best where a number of people are faced with common problems and goals. They find themselves interacting in an effort to find solutions from both a personal and group standpoint. The dental student culture is a body of understanding, of agreement, and of mutual effort about matters related to the dental student. It tends to build upon

itself and derive strength from itself. Therefore, it is of the utmost importance for minority students to effectively participate in and interact with this common effort. It is important because their academic, emotional, personal, and social successes hinge on the degree to which they are accepted or rejected by the student culture.

Dental schools must also appreciate that when a minority student joins an institution, he experiences an intense internal upheaval. He must modify certain culturally-related ideals and standards to which he has aspired for many years. He must recognize the subtle prejudices within himself and must determine to what extent he has joined or intends to join the "dominant" community. Therefore, dental schools should be prepared to assist the student in dealing with the manifestations of this internal turmoil: anxiety, uncertainty, depression, rejections and even dropping out.

In conclusion, it seems evident from our discussions of the last 2 days that there are many determinants of success for a minority student in dental school. Some are institutionalized within the school, others are in the students' background, but the most important by far result from his interpersonal relationships with the dental school community. Is humanism scarce at your school? If in doubt, ask any student -- but especially a minority student.

APPENDIX A:
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Dr. Dummett's argument is that access to comprehensive health care is the inalienable right of all persons and that the provision of such care is a community responsibility. Since truly comprehensive service must include dental care, the severe dental health manpower shortage in black communities must be alleviated through community wide education and recruitment programs to increase the level of dental health consciousness and to motivate minority students toward dental careers. In addition, all health professional schools must adopt reasonable yet effective recruitment, admissions, and retention procedures to encourage and assist disadvantaged dental students -- without lowering the standards for graduated dentists.

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This study focused on 86 freshman dental students at a midwestern university over a one-year period. Findings include: (1) students were coming predominantly from white-collar families; (2) personal satisfaction and autonomy, love of manual work, desire to help people, and respect of the community were primary motives for entering dentistry; (3) 9 students in 10 were against socialized medicine, regardless of class position; (4) dentistry was considered a high prestige occupation, regardless of class position; and (5) middle-class and lower-class students were more likely to consider race, education and religion in their judgment of a patient as a person.

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This article constitutes the keynote address delivered May 13, 1970, in Washington, D.C., at the Workshop, The Vanishing Minority Dentist. Dr. Henry stresses the critical priority of resolving current dental health manpower needs, particularly among blacks, and urges commitment to two objectives: (1) recognizing the misuse of standard testing procedures in the admissions of minority dental students, and (2) identifying the supplemental and supportive programs required for the retention of these students once admitted. As essential elements in any special program, Dr. Henry names: availability, accessibility, continuity, acceptability, efficiency, and responsiveness. He also emphasizes the commitment to action which must follow discussion if objectives are to be realized.

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Procedures are outlined for effective minority recruitment programs for all health professions. Major recommendations include: (1) use the program to build a "positive" professional image; (2) seek a one-to-one recruitment approach, enlisting minority professionals as role "models"; or (3) organize "teams" and provide non-minority members with special training in minority relations; (4) conduct surveys to determine where recruitment efforts should be concentrated; (5) prepare and utilize brochures, films, and other visual aids; (6) maintain direct communication with students through site visits; (7) develop valid measures of applicant capabilities to replace existing tests; and (8) publicize reinforcement programs for educationally disadvantaged students.

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APPENDIX B:
WORKSHOP ON MINORITY EDUCATION IN DENTISTRY

August 22 and 23, 1973

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